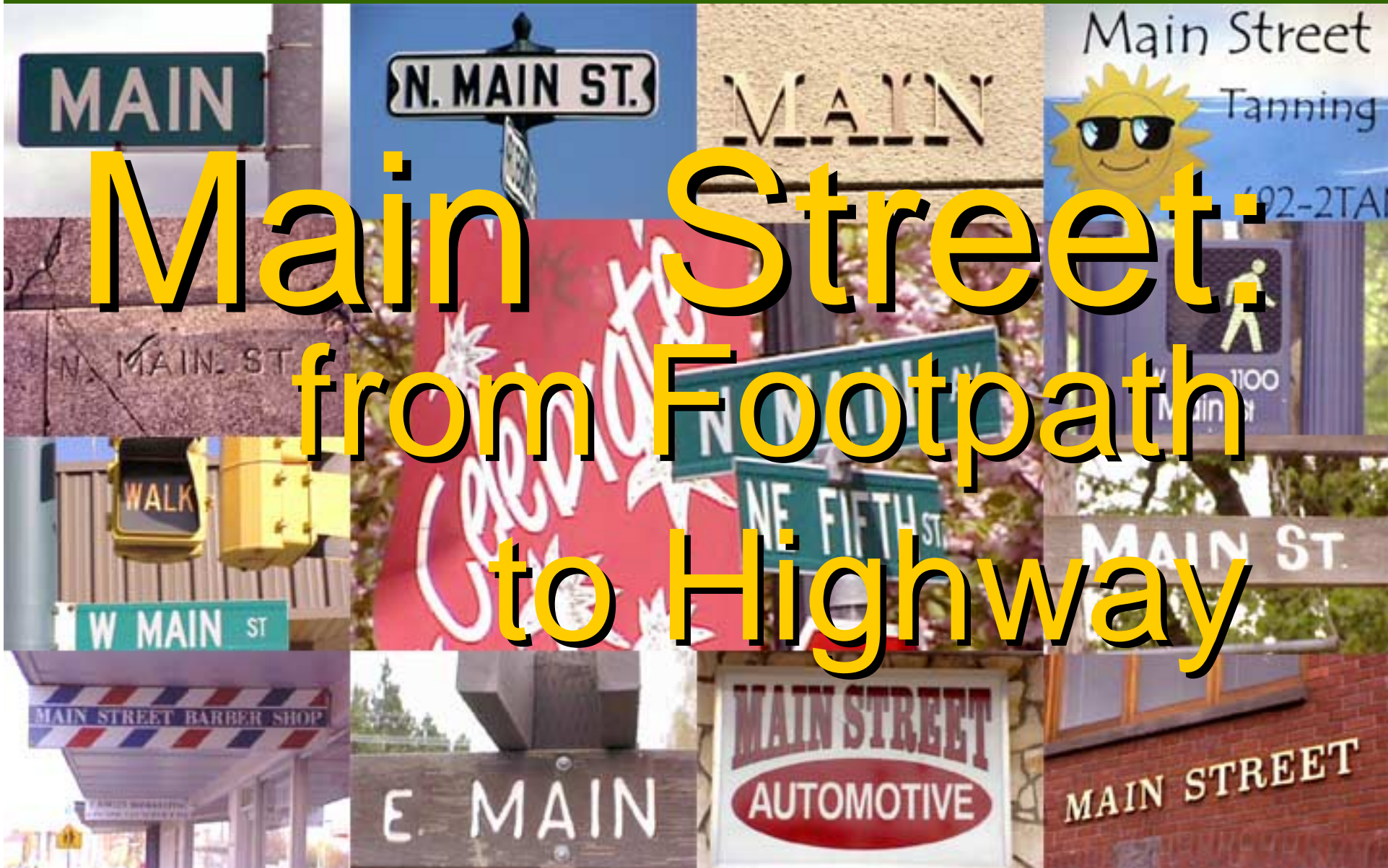




Main Street: from Footpath to Highway





Karen Swirsky, AICP



David Evans and Associates, Inc.



Balancing Downtown Vitality...





...with
Highway
Traffic

Why?

- **Most of Oregon's 246 cities straddle a highway.**
- **Highways are often the only way to get around & they're Main Street.**
- **Conflicts arise between local users and through traffic.**
- **A vital Main Street helps reduce sprawl.**

At the Heart

*“Main Street is where
you have parades.”*

*–Focus Group
Participant*



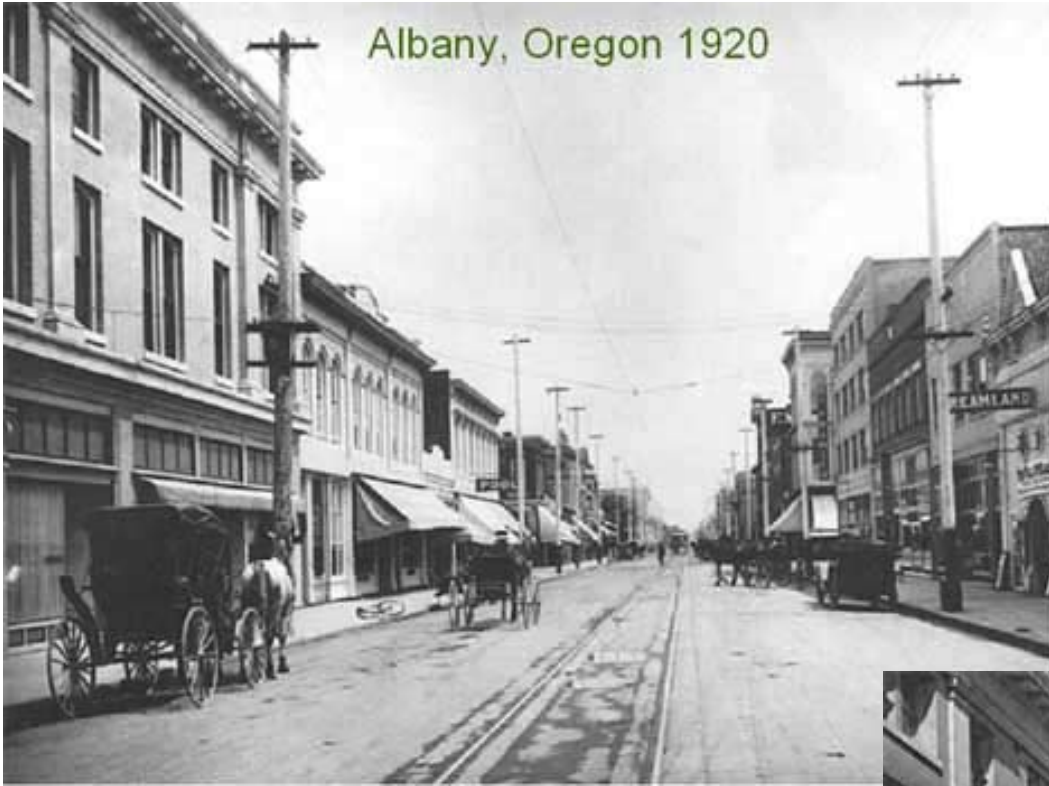
CONTEXT:

- Did main street create the highway,
- OR
- Did the highway create main street?

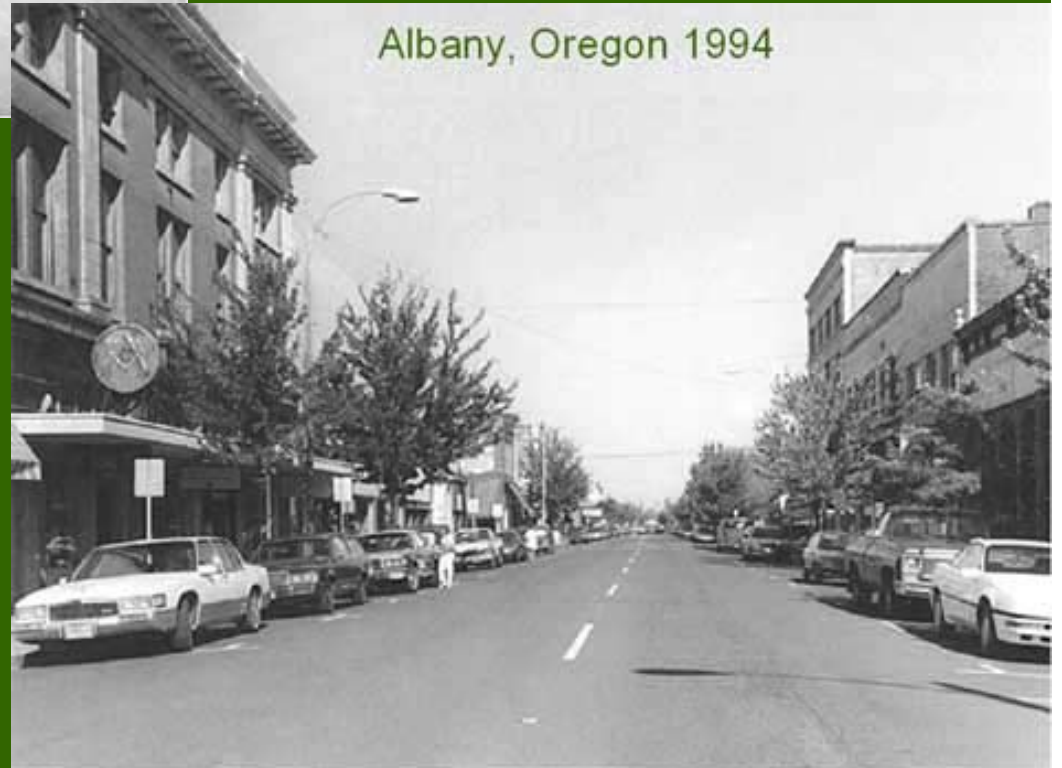




Albany, Oregon 1920



Albany, Oregon 1994





Sisters, Oregon

Remember - There are many Points of View!



Measuring Success

LOS
Level of Service

QOL
Quality of Life

Planning &
Engineering
Priorities

```
graph LR; LOS[LOS Level of Service] --> PEP{Planning & Engineering Priorities}; QOL[QOL Quality of Life] --> PEP;
```

The diagram illustrates the relationship between two metrics of success and their impact on planning. On the left, two rectangular boxes are stacked vertically. The top box, with a blue background, contains the text 'LOS' in large red letters and 'Level of Service' in smaller red letters below it. The bottom box, also with a blue background, contains the text 'QOL' in large green letters and 'Quality of Life' in smaller green letters below it. On the right, a blue diamond shape contains the text 'Planning & Engineering Priorities' in yellow. Two yellow arrows point from the right side of the rectangular boxes towards the diamond: one from the 'LOS' box and one from the 'QOL' box, indicating that both factors influence the planning and engineering priorities.



Identify the Real Problem

"A problem well stated is a problem half solved."

– *Charles Franklin Kettering (1876-1958)*

- **Safety**
- **Security**
- **Comfort**
- **Crossing**
- **Access**
- **Vitality**
- **Congestion**
- **Speed**

SPEEDING

“Cars *zoom* through downtown.”



Field of Vision at 40 mph

Person struck by car = 85% death rate



Field of Vision at 30 mph

Person struck by car = 45% death rate



Field of Vision at 20 mph

Person struck by car = 15% death rate



Field of Vision at 15 mph

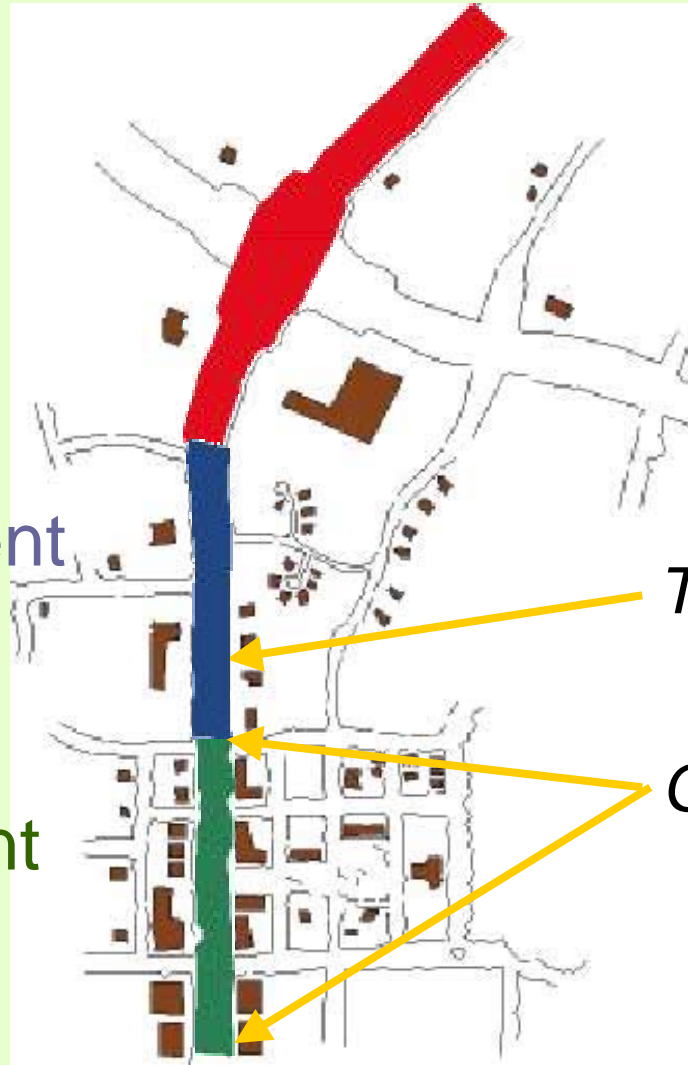


Speed Zones

Rural Segment
55 mph

Suburban Segment
~40 mph

Main St. Segment
20–25 mph



Transition Area

Gateway

Street Types



Highway Commercial



Transition Area



Entering Downtown



Traditional Main Street

Gateway



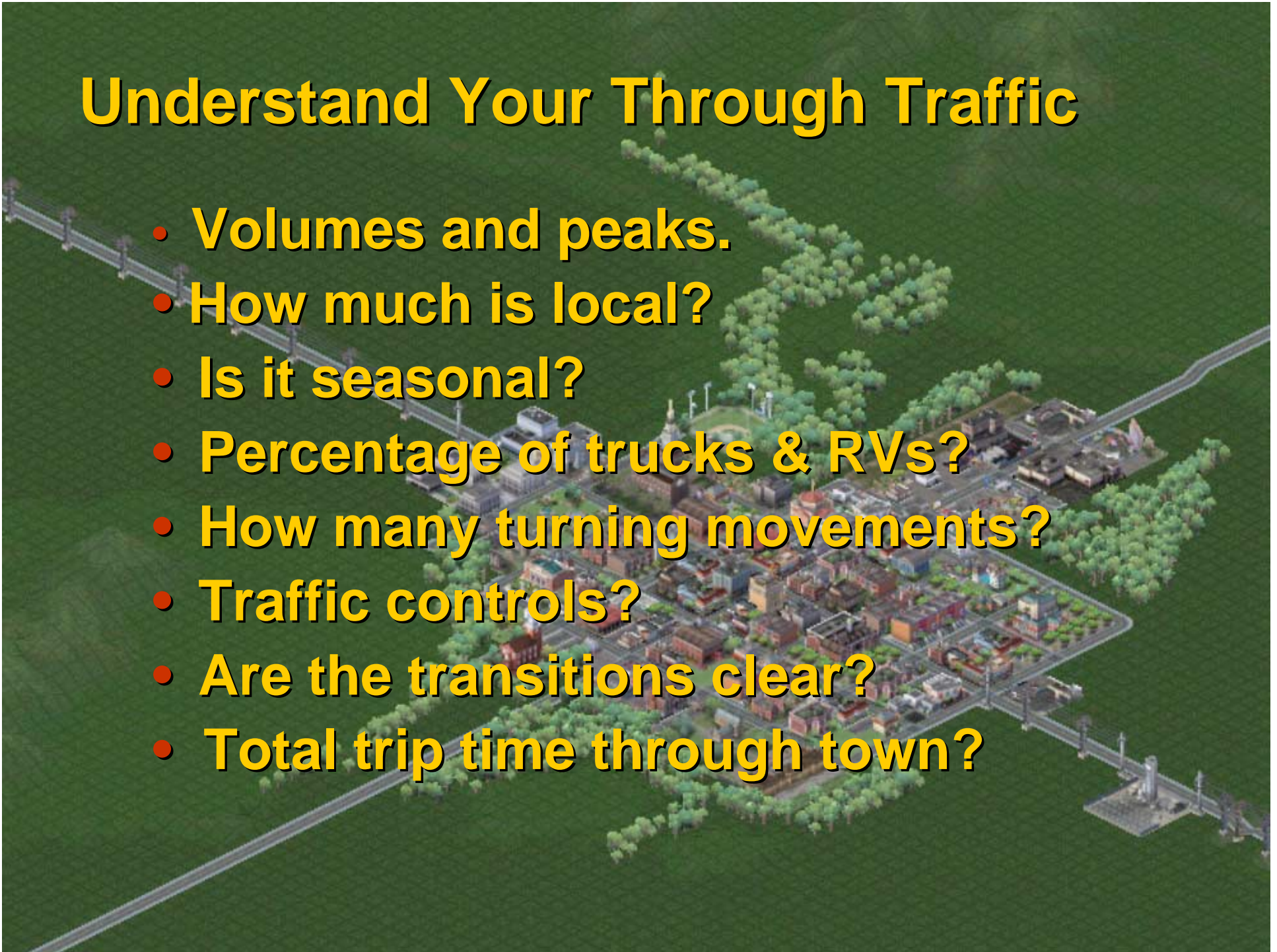
CONGESTION

“Traffic is terrible.”



Understand Your Through Traffic

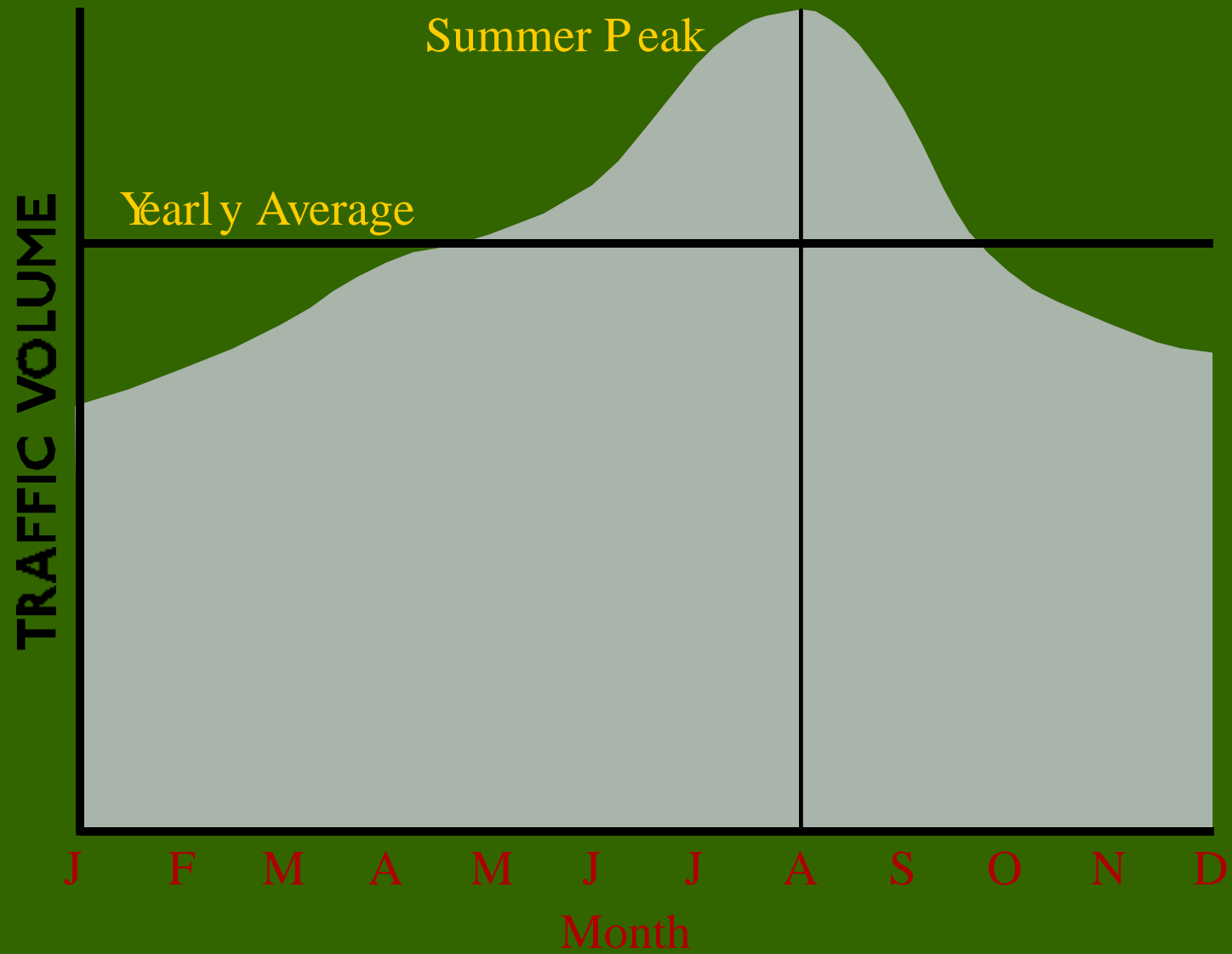
- Volumes and peaks.
- How much is local?
- Is it seasonal?
- Percentage of trucks & RVs?
- How many turning movements?
- Traffic controls?
- Are the transitions clear?
- Total trip time through town?



Most Traffic Is Local



Traffic can be seasonal



Finding the Right Strategy

- Calm the traffic
- Add a buffer
- Improve local street network
- Develop secondary through route
- Create couplet
- Develop transition area & gateway
- Expand Main Street
- Construct bypass

Creative Solutions Look at the entire street system...

...what are the options?

Improve
Local Street
Network

- Short blocks on main street
- Direct routes to neighborhoods
- Serves local trips

Secondary
Through
Route

- Fast parallel route
- Designed for trucks
- Good entry & exit to highway
- Compatible land uses

- High traffic volume
- Two parallel "main streets"
- Good connections & parking
- Good split points

Couplet
(1-Way Streets)

Bypass

- Extreme traffic volume
- Limited access
- Logical route available
- Acceptable costs



Context is
created by
land use!



Building setback, height & orientation

Good = 1:3 height-to-width ratio



Bad = 1:7 height-to-width ratio





Sidewalk Width



8' barely allows
2-way traffic + 3'
for bench



10' is more
comfortable

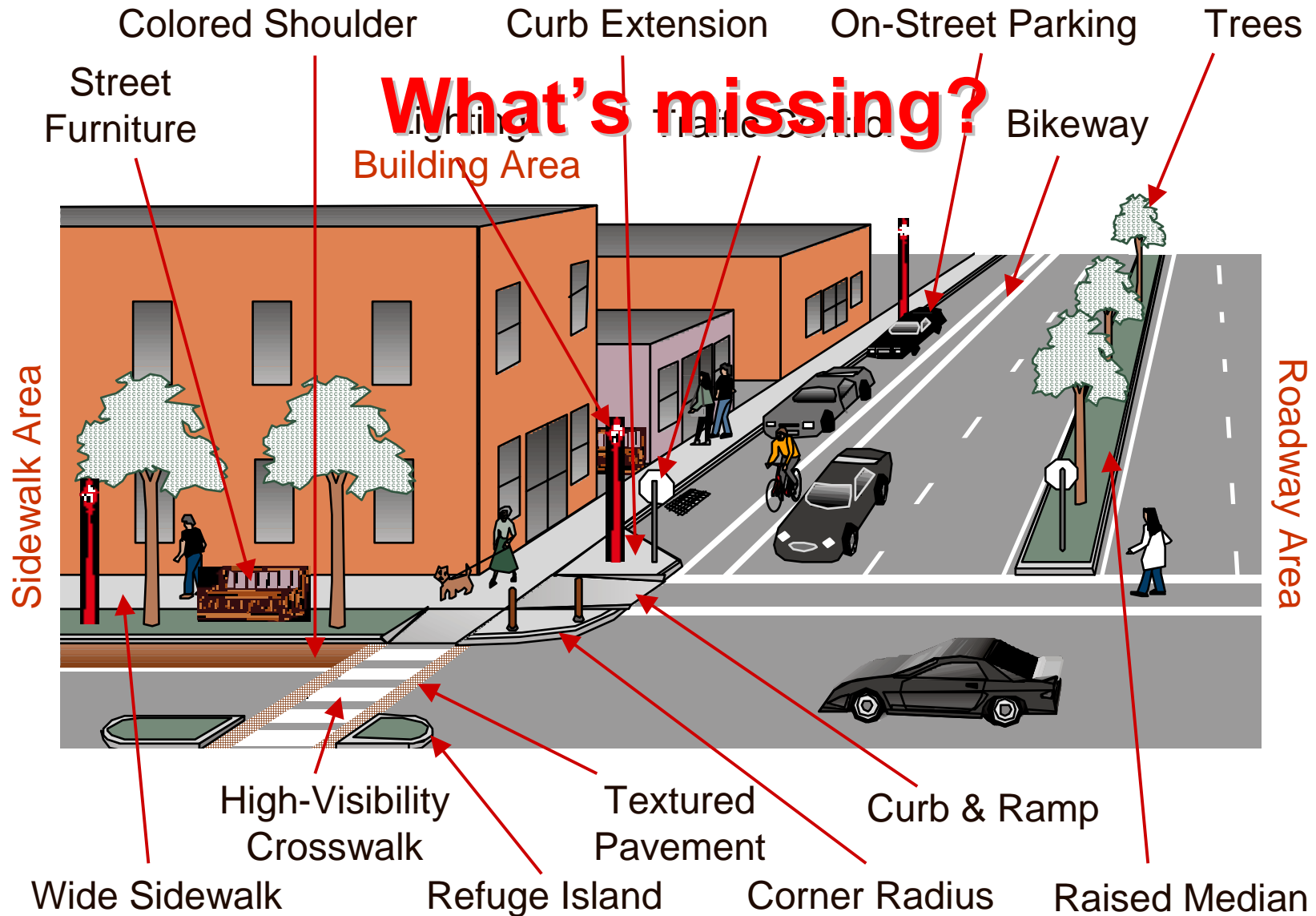


12' adds room
for tables,
planters, etc.



15' needed for
transit shelter or
heavy traffic

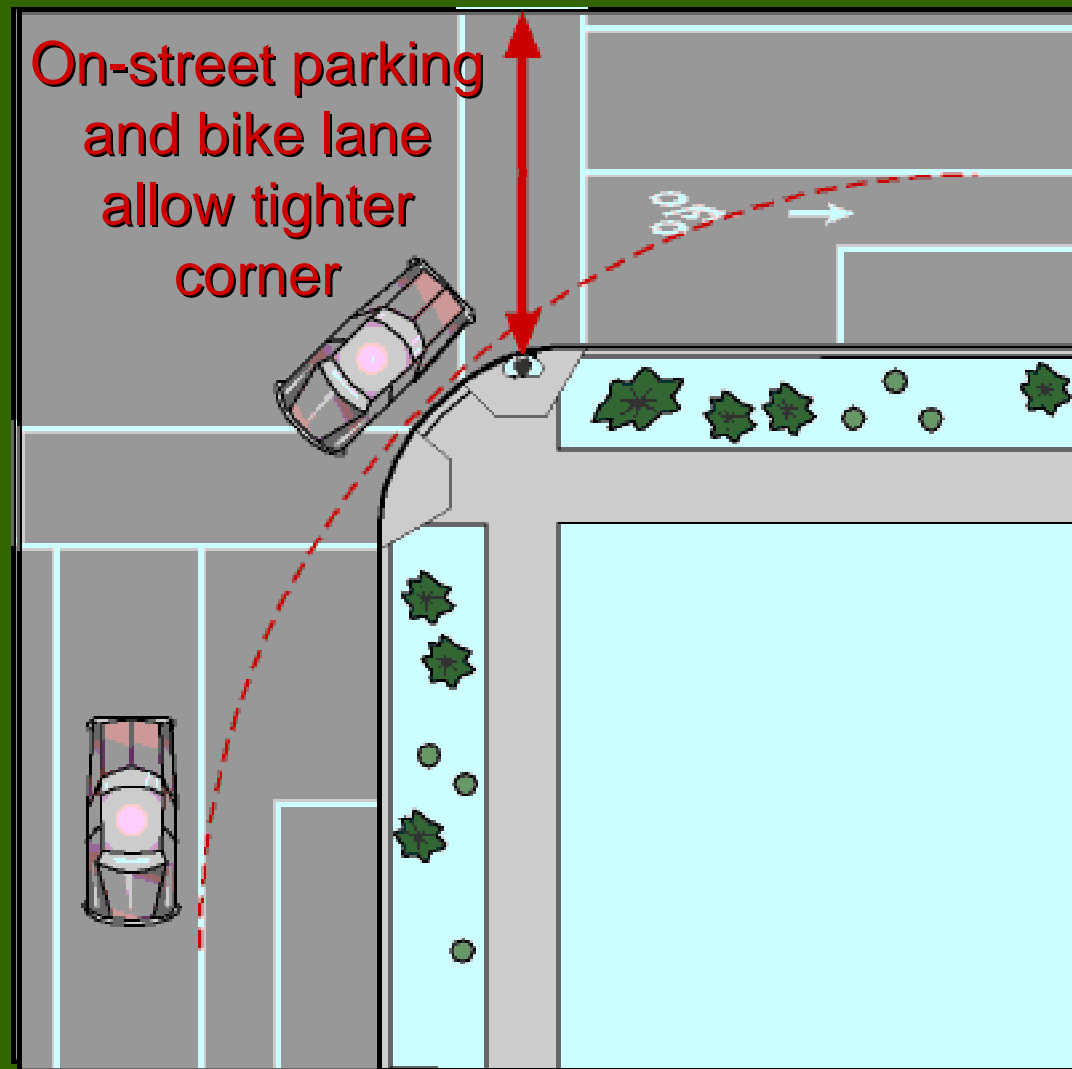
Look at the design ingredients...



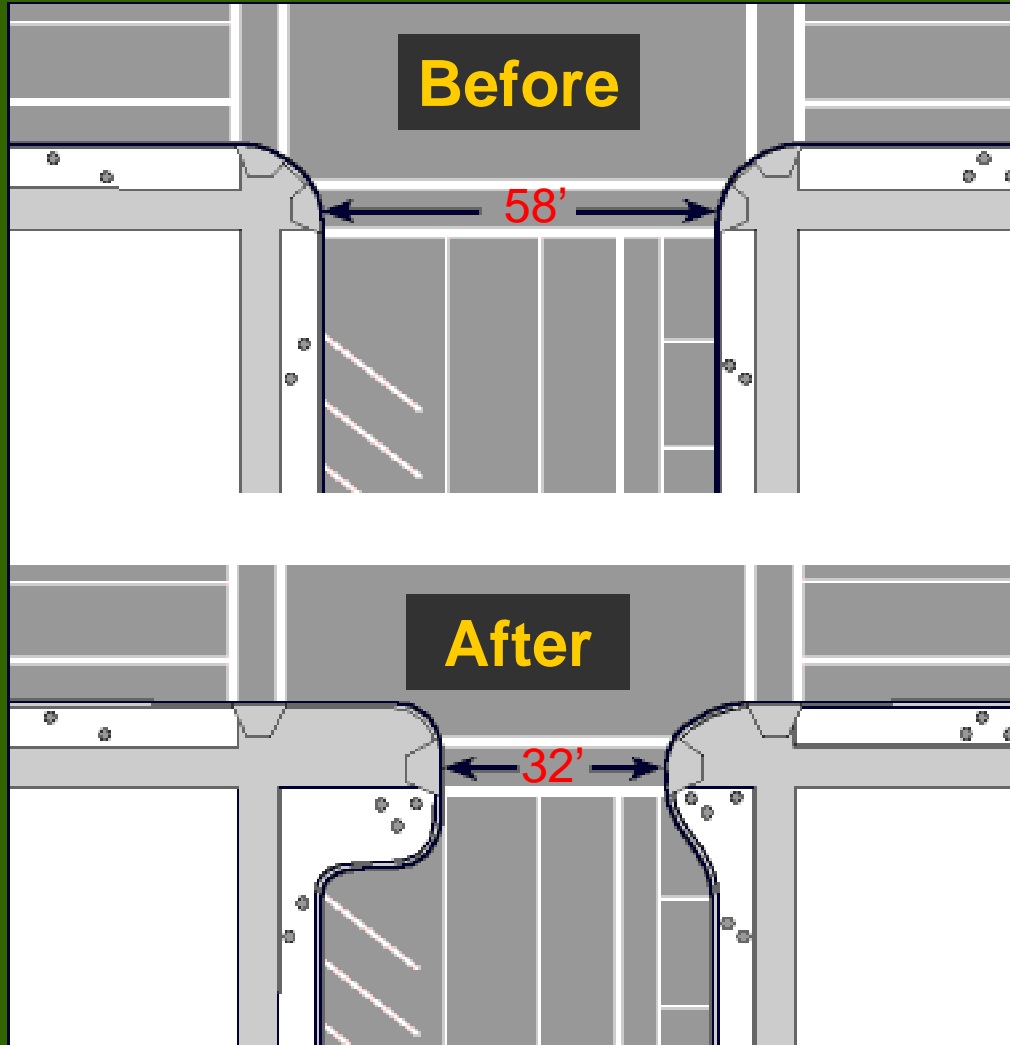
Choose the right ingredients

- Keep goals in mind
- Combine as many tools as needed
- Be creative
- Involve the public
- Apply sound & flexible engineering

Corner Radius



Curb Extension




Advantages:


- Shortened crossing distance.
- Greater pedestrian visibility.
- Better crosswalk alignment.
- Shorter pedestrian phase at signals.
- Place to put signal heads.



Travel Lane Width

A photograph of a wide, two-lane asphalt road with double yellow lines. A blue car is driving in the left lane. The road is flanked by sidewalks, trees, and buildings. The lane width is notably wide.

A wide lane encourages speeding

A photograph of a travel lane with a median and a bike lane. The lane is narrower than the one in the top image. It features a double yellow line on the left, a white line on the right, and a white line for the bike lane. A blue car is driving in the lane. The median and bike lane reduce the actual width of the travel lane.

Trees reduce perceived width.

Median & bike lane reduce actual width.

Trees

- **Most effective expenditure.**
- **Transforms street.**
- **Gives scale, softens edges.**
- **Attracts people.**

Good Trees Make Great Streets



Pedestrian Details

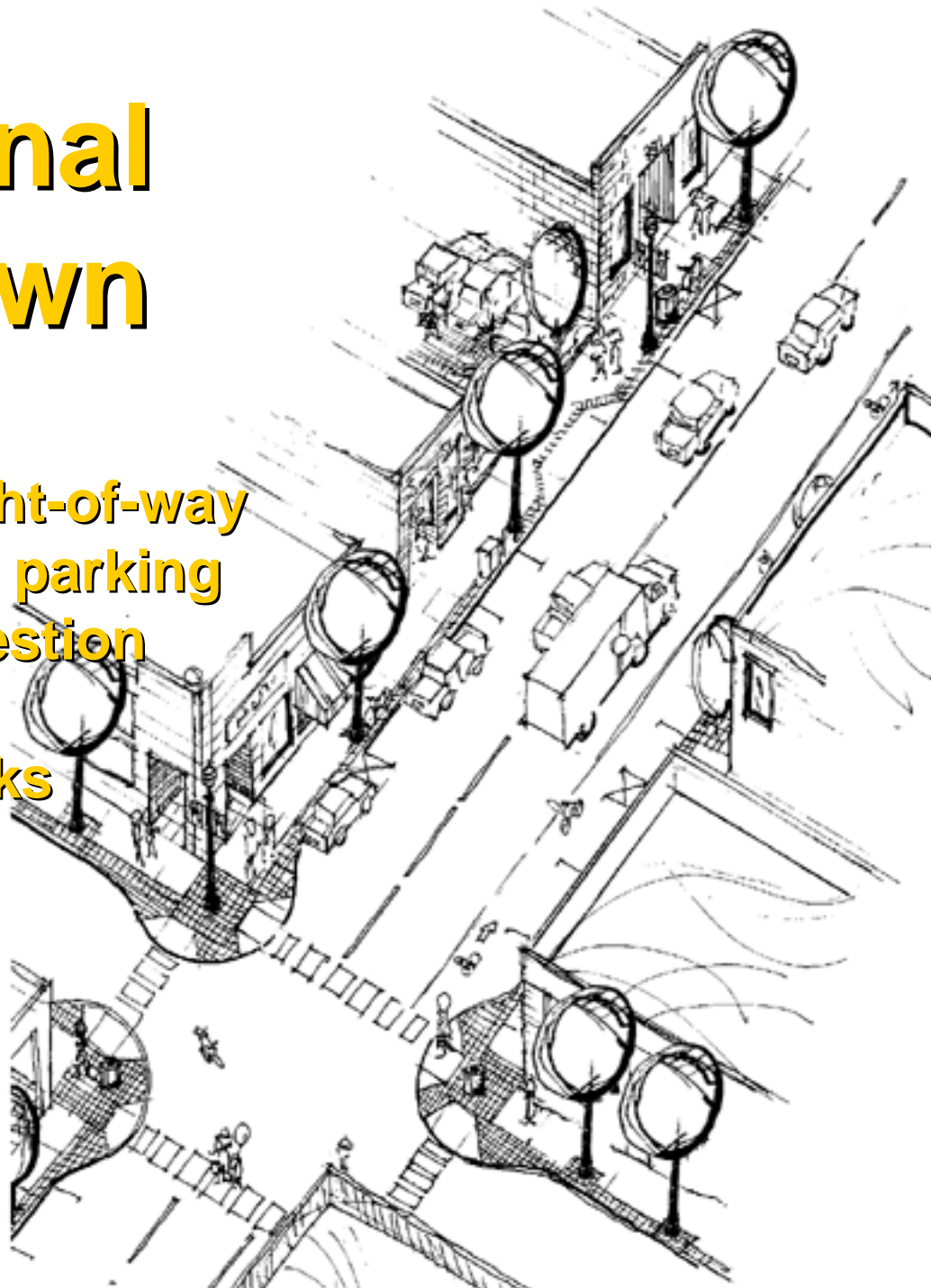


Family & Fun



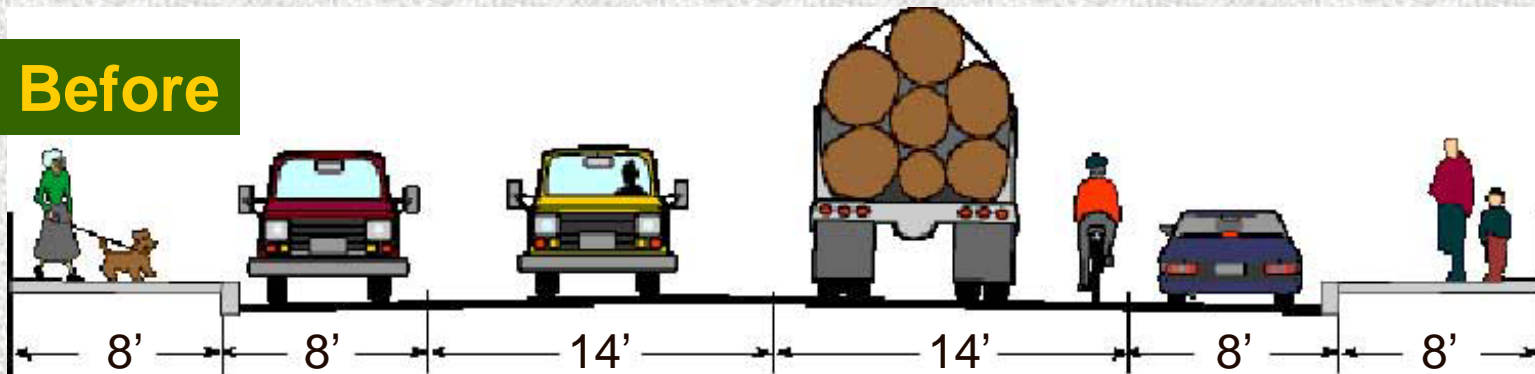
Traditional Downtown

- Constrained right-of-way
- Difficult parallel parking
- Seasonal Congestion
- Noisy trucks
- Narrow sidewalks

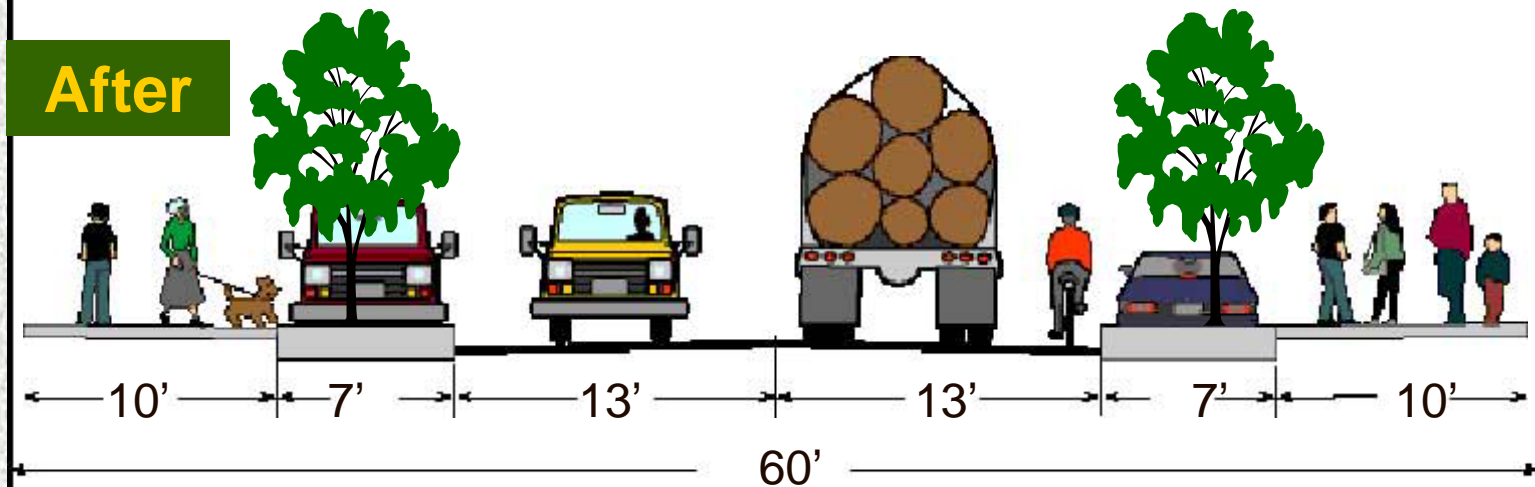


Add Parking Bays and Curb Extensions

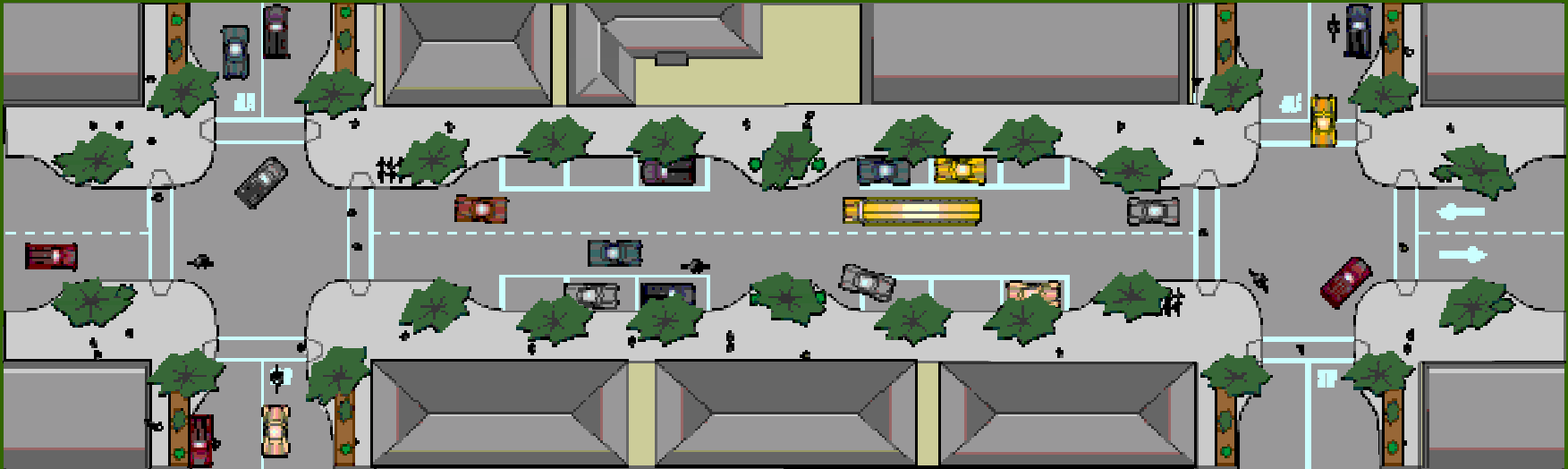
Before



After



Traditional Downtown



- **Keep blocks short & restrict driveways.**
- **Add curb extensions & parking bays.**
- **Place buildings at front property line.**
- **Plant trees to soften the street.**
- **Encourage street-oriented activity.**
- **Study feasibility of truck route**

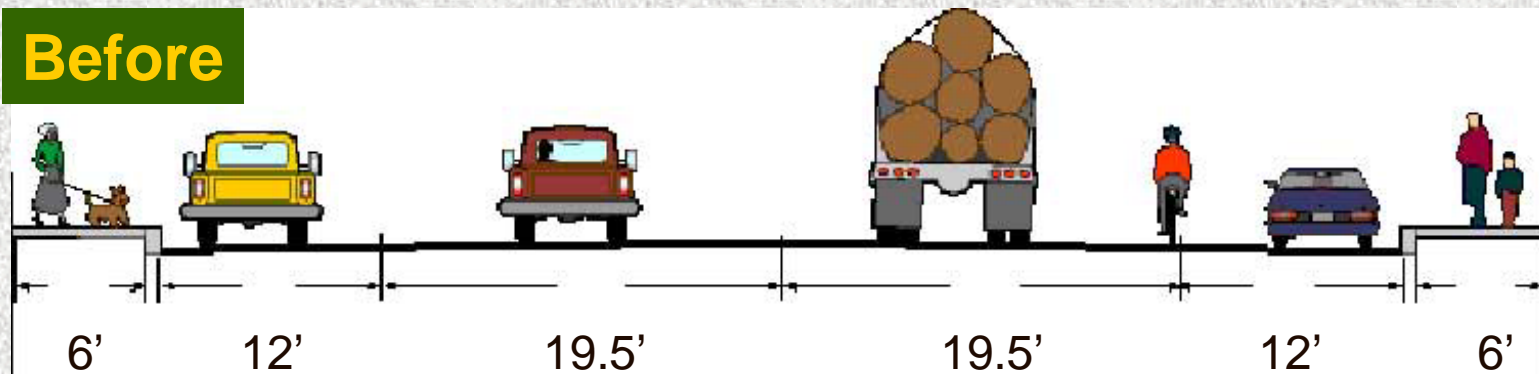
Couplet (One-Way Streets)

- Unattractive streetscape
- Narrow sidewalks
- Wide travel lanes
- Long crossing distance
- No bike lanes
- Speeding

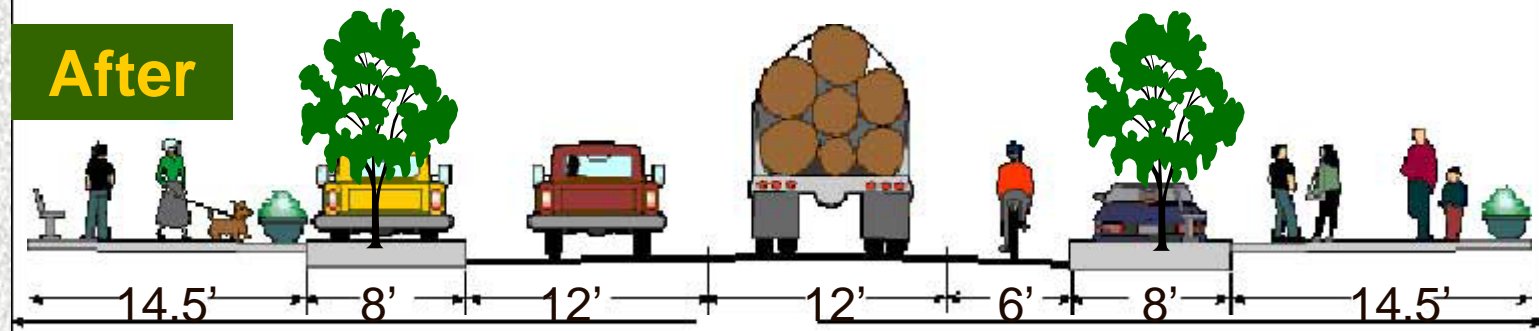


Widen Sidewalks & Add Bike Lanes

Before



After

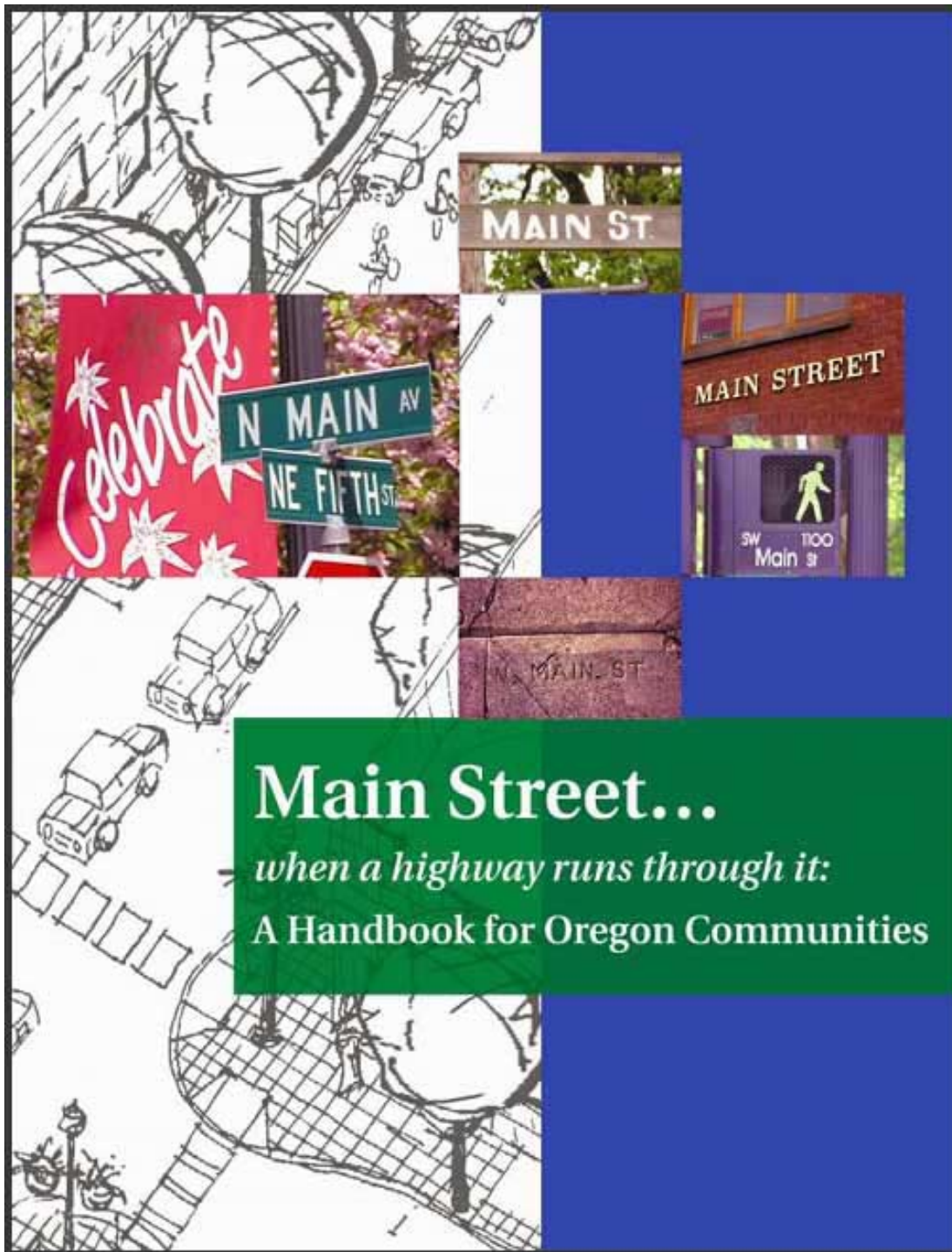


75'

Couplet (One-Way Streets)



- **Widen sidewalks.**
- **Add curb extensions & bike lane.**
- **Square corners where no right turns.**
- **Put buildings at sidewalk & add parks.**
- **Plant trees to soften the street.**
- **Encourage street-oriented activity.**



Main Street...

when a highway runs through it:
A Handbook for Oregon Communities

Transportation & Growth Management Program

www.lcd.state.or.us/tgm.html

Oregon Downtown Development Association

www.odda.org

David Evans and Associates, Inc.

www.deainc.com